

INSTRUCTIONS
CYCLONE DESCRIPTION (APC-2-20)

This form should be completed for all new permit applications and all renewals where source conditions have changed since the previous application. This form should be used for all cyclone controlled processes instead of the more general process or Fuel Burning Description Form (APC-2-02), and the Emission Point Description (APC-2-03). Complete a separate form for each cyclone capable of venting directly to the atmosphere. If the cyclone vent is capped and routed to some other control equipment such as a baghouse or scrubber, please use Form APC-2-03.

Item 1.- The right-hand portions of the first two lines are intended for Memphis and Shelby County-Air Pollution Control Section (MSCHD-APC) use only. However, if your facility has been assigned these ID numbers, they can be entered in these spaces. Please note that the legal name of your organization is the name registered with the Tennessee Secretary of State and therefore shall match up with the business number provided by that agency.

Item 2.- The emission source number should be a simple code which uniquely identifies the equipment covered by the application. It will be used to identify the equipment under consideration and to distinguish it from other, possibly similar, equipment. It should be referenced on all future correspondence concerning the equipment in question. Once assigned, this code should not be changed. If a change is required, the previous code and the new code should be listed in block 15 and the reason for the change explained.. The cyclone number is an arbitrarily assigned designation that can be used to uniquely identify the cyclone covered by the application. List the Standard Industrial Classification Code (SIC) for the source if known.

Item 3.- Location of the emission point should be entered in either latitude & longitude to the nearest seconds, or UTM coordinates to the nearest .01 kilometer. For example, 495.27 and 3948.61 are UTM horizontal and vertical coordinates respectively.

Item 4.5.- Operational schedule should reflect the time when any or all of the equipment covered by this application is in operation. Operation at less than normal load should be included in the operating time. Days/year need to be completed only if operation is so limited that it cannot be adequately described by days/week and weeks/year.

Item 6.- Percent annual throughput should reflect the approximate seasonal nature of the process. If the operation is not seasonal, enter 25% for each.

Item 7.- Indicate by a check in the proper space if the process controlled by the cyclone is a continuous or batch type operation. If the process is batch type, indicate the length of time normally required to process one batch and the number of batches, or fraction thereof, normally processed per day of operation.

Item 8.- This is the list of materials that will be used to determine the process weight rate for this source. Input rates are total process rates, not only what goes to the cyclone, and should be determined as follows:

- a. For continuous or long-run, steady-state operations, it is the material input weight for the entire period of continuous operation or for a typical portion thereof divided by the number of hours of such period or portion thereof.
- b. For cyclical or batch type operation, it is the material input weight for a period which covers a complete or an integral number of cycles divided by the hours of actual process operation during such period.
- c. All inputs should be listed separately; however, it is not expected or desired that extensive analysis be given for process inputs. Names such as rough lumber, limestone, or grain are adequate identifications.
- d. The process flow diagram should clearly represent the process emission source covered by the application. All emission points within the source should be shown and identified. If a site has more than one process emission source, a flow diagram showing all of the process emission sources at the site should also be attached. The overall flow diagram need not be duplicated for subsequent process applications and need only be included once.

Item 9.- Specify the type of material such as sawdust, crushed grain etc. and the rate at which it is blown to the cyclone. Also indicate if the cyclone handles any fine material such as sanding dust or flour. SCC code is for MSCHD-APC use only.

Item 10.- Refer to the cyclone diagram at the bottom of the form and supply the requested information.

(OVER)

Item 13. Emission estimates for each pollutant emitted from this point should be based on stack sampling results or engineering calculations. In certain cases other estimates or blanks may be accepted. Average emissions (lbs/hr) should be representative of the following:

- a. For continuous or long-run steady-state operations, it is the total weight of pollutant emitted to the atmosphere for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.
- b. For cyclical or batch type operations, it is the total weight of pollutant emitted to the atmosphere for a period which covers a complete or an integral number of cycles divided by the hours of actual process operation during such periods.

Maximum emissions (lbs/hr) should be determined by dividing the total highest emissions possible during any 3 hour period with control equipment working properly, by 3. This will be dependent upon such things, either singly or in combination, as maximum possible operating rate, a particular input material, product, or fuel which may result in increased emissions; periods of highest emissions for cyclical or batch type operations, etc. Concentrations should reflect average exit gas concentrations reported in the units specified on the form.

Emission estimation method and control device descriptions, along with corresponding codes, can be found on the back of the Permit Application Form (APC-2-01). The codes which most accurately describe the estimation methods and control equipment used, along with estimated control equipment efficiency should be entered for each pollutant present. Any estimation methods or control devices other than those listed in the tables should be described in the comments (Item 15).